Rhodora

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CONTENTS

Historical Data regarding the Sweet Bay. *G. G. Kennedy* . 205
Early Flowering of Rudbeckia hirta. *W. S. Coley* . . . 212
Flora of the Boston District,— XXIV 213
A Monstrosity of Arisaema triphyllum. *B. L. Robinson* . . 222
Concerning Linum intercursum Bicknell. *C. A. Weatherby* . 224

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JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 18. October, 1916. No. 214.

SOME HISTORICAL DATA REGARDING THE SWEET BAY AND ITS STATION ON CAPE ANN.

GEORGE G. KENNEDY.

[DURING the preparation of the current installment of the Reports on the Flora of the Boston District the Committee in charge of this work of the New England Botanical Club received the suggestion that as *Magnolia virginiana* L.— a species long familiar under the now discarded name of *M. glauca* L.— was included in this section of the catalogue and as the circumstances regarding the discovery of its isolated and highly interesting station near Gloucester, Massachusetts, had been the subject of some doubt and controversy, it would be desirable at this time to assemble the facts concerning the unhappily vanishing northeastern colony of this noteworthy plant — one of the rarest in the flora of New England. Acting upon this excellent suggestion the Committee applied to Dr. George Golding Kennedy, who was known to have information upon the subject.

At the request of the Committee and from his own extensive botanical and historical library, rich in Americana, Dr. Kennedy has most kindly sought out and brought together many references to the Sweet Bay. While he disclaims originality in his article it is confidently believed that the facts here assembled from sources, several of which are rare and accessible to few, will prove decidedly welcome to the readers of RHODORA. Their points of chief interest are in fixing the date at which the station was first noticed, as well as in clarifying the identity of the discoverer; also in placing on record the condition of the colony at different dates within recent decades. It is hoped that more general knowledge of the history and biological interest of this vanishing member of the New England flora will stimulate care in the protection of the remaining individuals and will promptly stop any tendency to deplete the station further.— ED.]

The beauty, fragrance and novelty of the Magnolias of the Southern states early attracted the attention of the explorers, farmers and botanists.

Plumier in his Nova plantarum Americanarum genera, p. 36, pl. 7 (Paris, 1703) gave the name in honor of Magnol, a professor of botany at Montpelier, France, and also gave what for the times was a good plate of the details of the structure of the flower. He says he has seen but one species. Linnaeus adopted most of Plumier's generic names, and among them *Magnolia.*

Clayton in his Flora Virginica, ed. 2, p. 83 (1762) cites (although without binomial designations) several species of the genus, among them *Magnolia glauca,* the shrub or low tree popularly called Swamp Laurel or Beaver Tree, which was in fact the most plentiful in number and most fragrant in flower, as well as most kindly disposed to transplanting.

Many gardens in England, France and Spain had plants of American origin before the end of the 17th century. In the next century the pupils of Linnaeus spread themselves over a large part of Europe as well as over New Spain and the more easily explored coast line of the Atlantic Ocean from Florida to the islands of the St. Lawrence valley. Of these travellers Peter Kalm kept a journal of his wanderings and discoveries. Under the date of Oct. 20, 1748, he gives two pages (vol. i. pp. 160–161 in Forster's English translation, Ed. 2) to the *Magnolia,* which must have been pleasant reading for those old colonial days.

"Oct. the 20th. The *Beaver tree* is to be met with in several parts of *Pensylvania* and *New Jersey,* in a poor swampy soil, or on wet meadows. Dr. *Linnaeus* calls it *Magnolia glauca.* Both the *Swedes* and *English* call it *Beaver tree,* because the root of this tree is the dainty of beaver, which are caught by its means, however the *Swedes* sometimes gave it a different name, and the *English* as improperly called it *Swamp Sassafras* and *White Laurel.* The trees of this kind dropt their leaves early in autumn, though some of the young trees kept them all the winter. I have seldom found the beaver tree north of *Pensylvania,* where it begins to flower about the end of *May.* The scent of its blossoms is excellent, for by it you can discover within three quarters of an *English* mile, whether these little trees stand in the neighborhood, provided the wind be not against it. For the whole air is filled with this sweet and pleasant scent. It is beyond description agreeable to travel in the woods about that time, especially towards night. They retain their flowers for three weeks, and even longer, according to the quality of the soil on which the trees stand; and, during the whole of their being in blossom, they spread their odoriferous exhalations. The berries likewise look very fine when they are ripe, for they have a rich red color, and hang in bunches on slender stalks. The cough, and other pectoral diseases, are cured by putting the berries into rum or brandy, of which a draught every morning may be taken; the virtues of this remedy were universally extolled, and even praised for their salutary effects in consumptions. . . . and it was thought that a decoction of it could stop the dysentery. Persons who had caught cold, boiled the branches of the beaver tree in water, and drank it to their great relief."

Mark Catesby in his considerable and important work The Natural History of Carolina, Florida, and the Bahama Islands (2 vols. folio, London, 1771) gives at page 39 an account of the Sweet Flowering Bay with an excellent plate and description. A portion of the text runs: "They [*i. e.* these trees] grow naturally in moist places, and often in shallow water; and what is extraordinary, they being removed on high dry ground, become more regular and handsomer trees, and are more prolific of flowers and fruit. They usually lose their leaves in winter, except it be moderate."

"This beautiful flowering tree is a native both of Virginia and Carolina and is growing at Mr. Fairchild's in Hoxton and Mr. Collinson's at Peckham [England] . . . requiring no protection in our coldest winters."

One of the earliest volumes on Materia Medica Americana, namely that of David Schoepf, printed at Erlangen, Bavaria, in 1787, has on page 91 an old-fashioned list of pharmaceutical uses of *Magnolia glauca*, from the aromatic bitter of its bark to its ashes made into an ointment for ulcers. This book shows at least how much value was given to the very noticeable tree.

On pages 139 and 140 in the first edition of his Plants of Boston, published in 1814, Dr. Jacob Bigelow says of *Magnolia glauca:* "The only species of this superb genus, that has been found native in our climate. It attains the height of a dozen feet, but is sometimes killed down to the roots by severe winters. . . . The bark is highly aromatic, and possesses medicinal properties. It grows plentifully in a sheltered swamp at Gloucester, Cape Ann, twenty five miles from Boston, which is perhaps its most northern boundary.— June, July."

Magnolia glauca is similarly treated in the 2nd edition of the same work in 1824, and in the 3rd edition in 1840; also in Bigelow's Medical Botany, vol. ii. pp. 67–70, where it is called an aromatic tonic.

Stephen Elliott in his Sketch of the Botany of South Carolina and Georgia, vol. ii. p. 37 (1821), says: "This is probably the most fragrant plant of our forests. It grows in great profusion along the margin of the rich swamps which border our rivers, and in the morning and evening during the period of its flowering, the atmosphere of our streams is often literally perfumed with its fragrance."

"Grows in swamps and wet soils, though extremely abundant in the low country of Carolina — it is very rarely found upon the islands which border the sea coasts."

Darlington in his classical Flora Cestrica, ed. 3, p. 8 (1853), made the following comments upon the species: "This delightful little tree, though abundant in the swamps of New Castle County, on the south of us, is rare in Chester County."

Dr. Francis Peyre Porcher in his Resources of the Southern Fields and Forests (Charleston, So. Car., 1863), pp. 36–37, speaks almost entirely of its pharmaceutical value in many cases of a typhoidal character: "The bark of the root, according to Griffith, was employed by the Indians to fulfil a variety of indications; the warm decoction acts as a gentle laxative, and subsequently as a sudorific, whilst the cold decoction, powder of, or tincture, is tonic. . . . It is supposed by many residing in the lower portions of this state that this tree prevents the water of bogs and galls from generating malaria. It certainly seems that the water is much clearer in which the bay tree grows."

George B. Emerson in his Trees and Shrubs of Massachusetts, ed. 2 (1875) and without change ed. 3 (1878), p. 603, says,

"A sheltered swamp near Cape Ann, not far from the sea, is thought to be the most northern habitation of this plant, and until lately was supposed to be the only one in Massachusetts. It has recently been found at the distance of some miles, in another swamp, in the midst of deep woods in Essex."

At this point there is a reference to the following foot-note.

"It is said to have been found, in a single spot, in the county of York, Maine."

No specimen, however, from Maine exists in any herbarium to my knowledge. The text continues: "From these situations it will soon be completely extirpated. The fragrant flowers and even the leaves are in such request, that, early in the flowering season, numbers of persons resort to the swamps in quest of them, and great quantities are annually carried to Salem and Boston for sale. The gatherers of the flower are regardless of the preservation of the trees; and in a single season I have noticed scores of them broken down and almost entirely destroyed." . . . .

"No plant is, at every season and in every condition, more beautiful. The flower, two or three inches broad, is as beautiful and almost as fragrant as the water lily."

John Robinson in his Flora of Essex County (Salem, Mass., 1880), p. 31, under *Magnolia glauca* gives the following: "Gloucester and swamps towards Essex. First brought to notice by Rev. Manasseh Cutler during the last century."

The date in Mr. Cutler's Journal is given as Monday, July 28, 1806; so that the reading should have been "in the early years of the [then] present century" as no exact date was then available.

Lester F. Ward in his Guide to the Flora of Washington and Vicinity (1881), p. 63, makes the following record regarding *Magnolia* in the region of which he was writing. "In all swamps, but being rapidly destroyed by people in search of the flowers."

The species is apparently rare in Tennessee, as Gattinger in his Flora of Tennessee (1901), p. 79, gives but one station for it, namely, "Madison Co. W. Tenn. S. M. Bain."

In C. S. Sargent's Manual of the Trees of North America (1905), p. 318, occurs the following: "Most abundant and of its largest size in the interior of the Florida peninsula on fertile hummocks rising above the level of the Pine-lands."

"Often cultivated as a garden plant in the eastern states and in Europe."

In Garden and Forest, vol. iii. p. 23 (1890), there is a valuable note by Mr. T. O. Fuller of Needham, Mass., which I copy in full.

"To the Editor of Garden and Forest: Sir.— In regard to the Massachusetts station of Magnolia glauca, noticed in Garden and Forest (ii. 612), the following may be of interest to some of your readers:

> 'The first specimen of the *Magnolia glauca* noticed in Massachusetts was brought from Cape Ann Woods in the summer of 1805, by the late Chief Justice Parsons. He observed a number of plants in flower as he was journeying on that road, and being struck with their beautiful appearance, gathered a few, which he brought to Boston for examination by his friends. I happened to be at his house on the day he returned from his journey. He showed me

his acquisition, and wished to know what it was. I took one of the specimens home for examination, and found it to be *Magnolia glauca* — a most unexpected inhabitant of our region. *J. D.*'

The above is a marginal note, written by Judge John Davis, of Boston, in his copy of the first edition of Bigelow's 'Florula Bostoniensis' (a presentation copy to 'Judge Davis from his friend and serv't, the author') on the page where the *Magnolia* is described."

In Dr. Cutler's Diary occurs the following:

"July 28, 1806. Monday.

Hon Theophilus Parsons informed me by letter last evening that he had found the *Magnolia glauca* in a swamp on the road from Manchester to Gloucester. I set out in search of it. Dined at Captain Ingolson's, at Kettle Cove, where Mr. Goldsmith brought me a tree of it, without knowing I was in search of it. Found it in plenty, in two swamps on the new read [sic] to the left.

Went to Fresh-Water Cove, near the harbor of Gloucester, made a large botanical collection, and returned."

We are fortunate in having a much fuller account of this discovery in the Life, Journals and Correspondence of Rev. Manasseh Cutler, L.L.D. (published in Cincinnati, in 1888, by Robert Clarke & Co.). The following letter from Judge Parsons to Dr. Cutler, written in July, 1806, I will quote entire.

Reverend and Dear Sir:

In riding through the woods in Gloucester, that are between Kettle-Cove and Fresh-Water Cove I discovered a flower to me quite new and unexpected in our forests. This was last Tuesday week [July 22, 1806]. A shower approaching prevented my leaving the carriage for examination, but on my return, on Friday last, I collected several of the flowers, in different stages, with the branches and leaves, and on inspection it is unquestionably the Magnolia glauca. Mr. Epes Sargent has traversed these woods for flowers and not having discovered it, supposes it could not have been there many years. It was unknown to the people of Gloucester and Manchester until I showed it to them. I think you have traversed the same woods herborizing. Did you discover it? If not, how long has it been there? It grows in a swamp on the western or left side of the road as you go from Manchester to Gloucester, and before you come to a large hill over which the road formerly passed. It is so near the road as to be visible even to the careless eye of the traveler. Supposing the knowledge of this flower, growing so far north, might gratify you, I have made this hasty communication.

Your humble servant,

Theoph. Parsons.

Rev. Dr. Cutler.

This letter of Judge Parsons conclusively fixes the date of the discovery of the Sweet Bay in Gloucester as July 22nd, 1806, and shows clearly the identity of the discoverer as the Hon. Theophilus Parsons. From a Life of Judge Parsons it is clear that the study of plants was one of his favorite recreations. At the time of the discovery of the *Magnolia* he was fifty-six years of age and was living on Pearl Street, Boston, in a house with a large garden.

The date 1805, given by Judge Davis, in the note cited above, is plainly an error. The marginal memorandum in his copy of Bigelow's Florula Bostoniensis written a number of years after the discovery can surely carry little weight as evidence compared with a letter written by the discoverer at the time of the discovery.

In the Life of Rev. Manasseh Cutler, vol. ii. p. 359, one of his grandchildren tells of his home at Hamilton, Mass., with his garden where were to be seen many transplanted trees and shrubs. "Here grew the pawpaw and persimmon by the side of strange foreign plants; and in a swamp, not distant, flourished a transplanted Magnolia, and in the garden a large tulip-tree."

Regarding the origin of the colony and its present sadly depleted state the following communications are of much interest.

In Garden and Forest, vol. ii. p. 363 (1889) J. G. Jack gives nearly a page on the Magnolia of Essex Co., Mass., including some parts of its early history. And an unsigned correspondent in the same volume on page 612 gives some suggestive hints as to its possible introduction. I copy this note complete. "Magnolia Swamp contains several hundred acres, and it is one and a half miles in length and from ten to over 100 rods in width. I am of the opinion that this swamp has furnished the shrub to all the others. In regard to three of the smaller swamps I know that this is a fact, the Magnolia shrubs having been transplanted by men. The inhabitants of Gloucester are firm in the belief that *Magnolia glauca* is a native shrub, but I cannot think so.

I believe it was introduced by the old settlers, some of whom may have lived in and removed from a more southern state. 'The old Salem road' deserted by the travelling public for over 100 years, skirts the eastern side of Magnolia Swamp. Along the line of this road are the ruins of old cellars, and in the swamp opposite one of the cellars, near a spring, may be found Magnolias which appear the oldest in the region. The root-crowns below the moss are often found to be two feet in diameter. In no other place can I find such a growth, and it is here, I think, that the shrub first started. It must be evident to any careful observer that *Magnolia glauca* is struggling here in an unnatural climate. The primary roots grow straight down into the muck, and in the fall are thickly covered with rootlets, snowy white in color. In the spring these rootlets are mostly dead, and a greater part of young shoots die down to the moss, and a certain per cent of the old plants are winter-killed, which indicates that there is no harmony between shrub and climate."

Mr. Walter Deane has given me the following letter from Mr. C. E. Faxon which shows the condition of the swamp in the summer of 1913.

April 17, 1916.

Dear Mr. Deane:

I have just found in Garden and Forest an interesting letter from Mr. Fuller giving a marginal note from Judge Davis's copy of Bigelow's Plants of Boston. . . . When I first visited the swamp some 45 years ago there were plenty of good specimens all about, sometimes 15 feet tall or more. It was easy to find them, as the boys who sold the flowers on the Boston trains had made trails from one plant to another all over the swamp.

When I visited the place with Dr. Kennedy two years ago we found with the aid of the Tree Warden of the town, only two little plants a few feet high that had escaped the Magnolia hunters — such had been the destruction!

Yours faithfully,

C. E. Faxon.

From this it is plainly evident that unless some prompt measures are taken for its safety we shall very soon have seen the last of this delightful flower in our Massachusetts flora.

Readville, Massachusetts.

An early Flowering of Rudbeckia hirta.— On April 25, 1916, I discovered on the campus of the Massachusetts Agricultural College a plant of *Rudbeckia hirta* (Black-eyed Susan) in bloom. It had a very short stem and was found in an exposed, sunny situation on a slope. Gray gives the time of blooming of this species as from June to September.— William S. Coley, Massachusetts Agricultural College, Amherst, Massachusetts.

REPORTS ON THE FLORA OF THE BOSTON DISTRICT,—XXIV.

MAGNOLIACEAE.

MAGNOLIA.

M. virginiana L. West Gloucester, in swampy woods towards Essex, north of Magnolia village. As much interest is attached to this northernmost and isolated station for the Sweet Bay, a paper on this subject has been on request kindly contributed by Dr. George G. Kennedy and appears in this issue of RHODORA.

BERBERIDACEAE.

BERBERIS.

B. VULGARIS L. Rocky woods and pastures, an early introduction from Europe; common throughout. A seedless form, var. ASPERMA has been found in an old pasture at Sherborn by Miss Martha L. Loomis. See RHODORA xiv. 207, 1912.

CAULOPHYLLUM.

C. thalictroides (L.) Michx. Rocky woods, Georgetown (*Mrs. C. N. S. Horner*, 1873); rocky woods in rich shady ravine, Boxford (*G. G. Kennedy*, May 23, 1906; *E. F. Williams*, Aug. 9, 1906); low ground, Concord, introduced by Minot Pratt, persistent but not increasing (*E. F. Williams*, May 8, 1898).

PODOPHYLLUM.

P. PELTATUM L. Introduced and in some cases spreading at Salem, Chelmsford, Concord, Natick, Sherborn; Framingham and Burlington, according to Dame & Collins, Fl. Middlesex Co. 3, 1888.

LAURACEAE.

BENZOIN.

B. aestivale (L.) Nees. Swampy woods and wet places, frequent throughout.

SASSAFRAS.

S. variifolium (Salisb.) Ktze. Dry woods and thickets, frequent throughout.

S. variifolium (Salisb.) Ktze., var. **albidum** (Nutt.) Fernald. See Rhodora xv. 14–18, 1913. Occasional throughout.

PAPAVERACEAE.

ARGEMONE.

A. mexicana L. A fugitive from Mexico; reported from Lynn, Cambridge and Dorchester.

CHELIDONIUM.

C. majus L. A weed in moist soil, common throughout. Introduced from Europe prior to 1669 (John Josselyn, New England Rarities Discovered, 1672).

ESCHSCHOLTZIA.

E. californica Cham. California Poppy. Vacant lot in refuse, Fenway, Boston (*C. H. Knowlton*, Sept. 6, 1910). A well-known garden flower, native of California and Oregon.

PAPAVER.

P. Rhoeas L. Brookline, rare (*J. H. Foster*, 1869); Blue Hills, house-site (*F. S. Collins*, Sept. 2, 1895); open place in woods, persistent from 1905 to 1911, Newton (*F. W. Grigg*).

P. somniferum L. Garden escape; Georgetown, Dorchester, Scituate.

SANGUINARIA.

S. canadensis L. Moist soil in or near woods; frequent from Blue Hills and Hingham northward, either lacking or rare in southern towns.

FUMARIACEAE.

ADLUMIA.

A. FUNGOSA (Ait.) Greene. Garden escape at Georgetown, Manchester, Salem, Lowell and Dorchester.

CORYDALIS.

C. sempervirens (L.) Pers. Dry soil, often on ledges; frequent throughout. A yellow-flowered form was collected by J. R. Churchill on waste ground, Warren Farm, Brookline, July 21, 1897.

DICENTRA.

D. CANADENSIS (Goldie) Walp. Introduced by E. H. Hitchings in low deciduous woods Purgatory, Norwood, a dense patch made up of this and *Dentaria diphylla* (*R. A. Ware*, Apr. 15, 29, May 13, 1905).

D. Cucullaria (L.) Bernh. Salt Island, Gloucester (*Mrs. Babson*, May 16, 1875); rocky hill pasture, Cross's Island, Essex (May, 1909).

D. EXIMIA (Ker) Torr. Follansbee's, Haggett's Pond, Andover (*C. W. Swan*, Aug. 6, 1880, specimen in herb. Yale University).

FUMARIA.

F. OFFICINALIS L. Gardens and waste places, frequent.

CRUCIFERAE.

ALYSSUM.

A. ALYSSOIDES L. A weed at ten scattered stations, rare.

ARABIS.

A. canadensis L. Dry rocky woods and hillsides; occasional from Hingham and Blue Hills northward.

A. Drummondi Gray. Rocky places, often in woods; frequent north of Boston.

A. glabra (L.) Bernh. Fields and dry soil; Boxford, N. Andover, Lowell, Revere, Medford, Hingham, Wellesley.

A. viridis Harger. See RHODORA xiii. 37–39, 1911. Ledges and rocky hills; Melrose, Middlesex Fells, Woburn, Medford, W. Roxbury, Littleton.

BARBAREA.

B. VERNA (Mill.) Asch. Rubbish heap, Cambridge (*M. L. Fernald & C. A. Weatherby*, May 26, 1909); Wellesley (*K. M. Wiegand*, May 29, 1912); moist field, Sharon (*C. H. Knowlton*, May 19, 1907).

B. VULGARIS R. Br. Wet places, common throughout.

B. VULGARIS R. Br., var. LONGISILIQUOSA Carion. See RHODORA xi. 134–141, 1909. Wet places, frequent.

BERTEROA.

B. INCANA (L.) DC. Fields and waste places, occasional.

B. MUTABILIS (Vent.) DC. Hingham (*T. T. Bouvé*, September, 1894); roadside near station, Dedham (*E. F. Williams & Sidney Harris*, Aug. 22, 1897); cultivated ground, Walpole, one plant (*R. A. Ware*, Aug. 26, 1911).

BRASSICA.

B. ALBA (L.) Boiss. Waste ground, rare.

B. ARVENSIS (L.) Ktze. Fields and waste places, common throughout.

B. CAMPESTRIS L. Fields, gardens and waste places, common.

B. JAPONICA Siebold. Ash dump, Stoneham (*Miss H. A. Ward*, July 1, 1910); Lexington, according to Mabel P. Cook, RHODORA i. 81, 1899. Self-perpetuating in gardens.

B. JUNCEA (L.) Cosson. Fields and waste places, common.

B. NIGRA (L.) Koch. Waste places, frequent.

B. OLERACEA L. Waste places and gardens, sometimes persistent for a year.

B. RAPA L. Fields and waste places, Andover, Winchester, Bedford, Waltham, Milton.

CAKILE.

C. edentula (Bigel.) Hook. Sandy and gravelly seashores, all along the coast.

CAMELINA.

C. MICROCARPA Andrz. Waste places, occasional.
C. SATIVA (L.) Crantz. Waste places, occasional.

CAPSELLA.

C. BURSA-PASTORIS (L.) Medic. Gardens and waste places, very common throughout.

CARDAMINE.

C. bulbosa (Schreb.) BSP. Swamps and wet woods; frequent near Boston, but not reported from outlying portions of our district.

C. parviflora L. Ledges and open woods in central third of district. The plant seems to have a marked soil-preference for the diorite hills.

C. pennsylvanica Muhl. Brooks and wet places, very common throughout.

C. pratensis L. Wet meadows, casual at Georgetown (*Mrs. C. N. S. Horner*, no date); spreading in a lawn, Woburn (*Marion T. Hosmer*, May 12, 1912); very abundant along Stony Brook in Weston.

CONRINGIA.

C. ORIENTALIS (L.) Dumort. Fields and waste places, Westford, Boston, Dedham, Sherborn, Wellesley.

CORONOPUS.

C. DIDYMUS (L.) Sm. Lawns and waste places, Boston, S. Boston, Cambridge, Wellesley.

DENTARIA.

D. diphylla Michx. Rich moist woods; Cambridge, Concord (introduced), Lowell, Norwood (introduced); Arlington (*E. Tuckerman*), Belmont, specimen in the Boott herbarium according to Dame & Collins, Fl. Middlesex Co. 6, 1888. Apparently very rare in our district.

D. maxima Nutt. Lowell (*W. P. Atwood*, May, 1883, specimen in herb. N. E. Botanical Club). This is *D. heterophylla* of Dame & Collins, Fl. Middlesex Co. 6, 1888.

DIPLOTAXIS.

D. muralis (L.) DC. Waste land, Chelsea (*H. A. Young & C. E. Perkins*, Sept. 5–12, 1879; specimen in herb. N. E. Botanical Club).

D. tenuifolia (L.) DC. Charlestown (*C. E. Perkins*, Sept. 23, 1880; specimen in herb. N. E. Botanical Club).

DRABA.

D. caroliniana Walt. Rocky hillsides, Salem Neck; first found by Dr. Charles Pickering in 1824; last report from J. H. Sears, May 18, 1901: Woburn (*C. E. Perkins*, June 2, 1882 and June, 1883).

D. verna L. Dry soil, Danvers (since 1826), Peabody, Salem, Medford, Cambridge, Wellesley.

ERUCASTRUM.

E. Pollichii Schimp. & Spenn. See Rhodora xiii. 10–12, 1911. Gravelly soil by railway, Sherborn (*Martha L. Loomis*, Sept. 4, 1910).

ERYSIMUM.

E. cheiranthoides L. Waste places, occasional throughout.

E. pannonicum Crantz. Woolen-mill yard, Graniteville, Westford (*C. W. Swan*, Aug. 12, 22, 1883; specimens in herb. Yale University and N. E. Botanical Club). Native of Europe. *E. repandum* of Dame & Collins, Fl. Middlesex Co. 7, 1888, of which no specimens can be found, is doubtless of this species, as the specimens were collected in the same locality only one and two years later.

E. repandum L. Uphams Corner, Dorchester (*C. W. Swan*, July 18, 1885; specimen in herb. Yale University). Native of Europe, western Asia and northern Africa. Prof. B. L. Robinson has kindly identified this and the above species.

EUCLIDIUM.

E. SYRIACUM R. Br. Waif in hen-yard, Dedham (*C. H. Knowlton*, June 23, 1907, specimen in Gray Herb.). See RHODORA x. 72, 1908.

HESPERIS.

H. MATRONALIS L. Persistent and spreading in old gardens, roadsides and waste places, frequent.

IBERIS.

I. AMARA L. Candytuft. Shawmut branch, N. Y., N. H. & H. R. R., Dorchester (*C. W. Swan*, July 11, 1885); probably casual elsewhere. Common in Europe, Asia Minor and Caucasus region.

LEPIDIUM.

L. APETALUM Willd. Dry roadsides and waste places, very common throughout.

L. CAMPESTRE (L.) R. Br. Waste places, frequent.

L. PERFOLIATUM L. Ballast ground, Chelsea bridge, Charlestown (*C. E. Perkins*, 188–, specimen in herb. N. E. Botanical Club). Native of southern Europe and the Orient.

L. RUDERALE L. Waste places, abundant in and about Boston; also at Gloucester, Chelmsford and N. Easton.

L. virginicum L. Roadsides, gardens and waste places, very common throughout.

LOBULARIA.

L. MARITIMA (L.) Desv. Garden escape; Salem, Cambridge, Roxbury, Dorchester.

NESLIA.

N. PANICULATA (L.) Desv. Hedgerow, Quincy St., Cambridge (*A. S. Pease*, July 31, 1908); Charlestown (*C. E. Perkins*, June 19, 1883); campus, Wellesley, one record only (*L. W. Riddle*, Sept. 14, 1909); railway tracks, Wellesley (*F. W. Hunnewell 2d*, —, 1914).

RAPHANUS.

R. Raphanistrum L. Fields and waste places, common throughout.

R. sativus L. Garden escape, occasional.

RAPISTRUM.

R. rugosum (L.) Berger., subsp. Linnaeanum (Boiss. & Reut.) Rouy & Fouc. Waste ground, Mill Dam, Boston (*C. E. Faxon*, —, 1873; specimen in Gray Herb.). A foreign introduction.

R. rugosum (L.) Berger., subsp. orientale (L.) Rouy & Fouc. Charlestown (*C. E. Perkins*, July 15, 1882; specimen in herb. N. E. Botanical Club). "This specimen is rather poor and doubtful, but it has the upper segment of the fruit abruptly contracted into a slender style, instead of attenuate, as in subsp. *Linnaeanum*," B. L. Robinson. A foreign introduction.

RORIPA.[1]

R. Armoracia (L.) Hitchc. Wet places, persistent and spreading; frequent throughout.

R. globosa (Turcz.) v. Hayek. Rubbish heap, Cambridge (*W. Deane*, Sept. 30, 1884; specimen in herb. W. Deane). A foreign introduction.

R. Nasturtium-aquaticum (L.) Schinz & Thell. Ditches and pools; frequent and abundant in central and southern portions, rare in Essex and northern Middlesex counties.

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[1] In regard to the nomenclature of this genus, long familiar as *Nasturtium*, then changed to the earlier *Roripa*, then in certain recent works, such as the last edition of Gray's Manual, treated under the still earlier name *Radicula*, it may be said that in accordance with the first provision of Article 54 of the International Rules of Botanical Nomenclature the name *Radicula* must be abandoned since it is a morphological term. This being the case the next possible name is *Rorippa* Scop. Fl. Carn. ed. 1, 520 (1760), but this name seems to have been a misprint, for it was corrected by its author, Scopoli, in the second edition of the same work, to *Roripa*. Opinions differ as to whether this name must be accepted in its original form, *Rorippa*, as maintained by Briquet, Prodrome de la Flore Corse, ii. 28 (1913), or whether it may be allowed to stand in its corrected form, *Roripa*. In Art. 57 of the International Rules there is clear implication that typographical and orthographical errors in plant names may be corrected. The matter then resolves itself into the question whether the form *Rorippa* was in fact a typographical or orthographical error. The etymology of the name is not evident, but there would seem to be no clearer ground for supposing that a name was a misprint than the fact that it was consistently corrected in form by its author in his subsequent use of the name. It may be further stated that in using here the name in the form *Roripa*, we are following the example of the majority of writers who have accepted the name in either of its forms.

R. palustris (L.) Bess. Not reported southward, but frequent elsewhere.

R. palustris (L.) Bess., var. **hispida** (Desv.) Rydb. Nearly as common as the type.

R. SYLVESTRIS (L.) Bess. Waste places in moist soil, occasional.

SISYMBRIUM.

S. ALTISSIMUM L. Roadsides and waste places, well distributed. Introduced within 20 years.

S. LOESELII L. Woolen-mill yard, Graniteville, Westford (*C. W. Swan*, Aug. 22, 1883, specimen in herb. Yale University).

S. OFFICINALE (L.) Scop. Dump, W. Cambridge (*C. A. Weatherby*, July 10, 1909); near houses, Stoughton (*S. F. Blake*, July 4, 1911, July 13, 1912).

S. OFFICINALE (L.) Scop., var. LEIOCARPUM DC. Waste places, common throughout.

S. PANNONICUM Jacq. Roadside, Tewksbury (*C. W. Swan*, July 10, 1883); woolen-mill yard, Graniteville, Westford (*C. W. Swan*, Aug. 20, 1885). Specimens in herb. Yale University. A foreign introduction.

S. SOPHIA L. Waste ground, abundant in a small patch, wholly gone the next year, Chelmsford (*C. W. Swan*, June 15, 1884, specimen in herb. Yale University).

S. THALIANUM (L.) J. Gay. Waste ground off Parkway, Brookline (*F. F. Forbes*, May 10, 1907).

THLASPI.

T. ARVENSE L. Waste and cultivated ground, frequent.

[SISYMBRIUM INCISUM Engelm. and TROPIDOCARPUM GRACILE Hook. are reported from wool-waste at N. Chelmsford by Rev. W. P. Alcott in Dame & Collins, Fl. Middlesex Co. 8, 10, 1888. As Mr. Alcott's herbarium is not available for examination these records cannot be verified].

[ISATIS TINCTORIA L. is reported by Dame & Collins from Newton, on the basis of a specimen in herb. Boston Soc. Nat. History, collected by C. J. Sprague. As the specimen cannot now be found the record cannot be verified].

C. H. KNOWLTON } *Committee on*
WALTER DEANE } *Local Flora.*

A NOTABLE MONSTROSITY OF ARISAEMA TRIPHYLLUM.

B. L. Robinson.

On June 4th, 1916, Dr. Horace Packard brought to the Gray Herbarium for examination and study a fresh specimen of the upper portion of an extraordinary Jack-in-the-Pulpit. He had discovered it in a low, slightly marshy spot, near a running brook, on the grounds of the Brae Burn Country Club, at West Newton, Massachusetts. The plant was about 3-4 dm. high and nothing unusual was noted regarding its foliage (which was not brought with the flowering stalk and has not been seen by the writer).

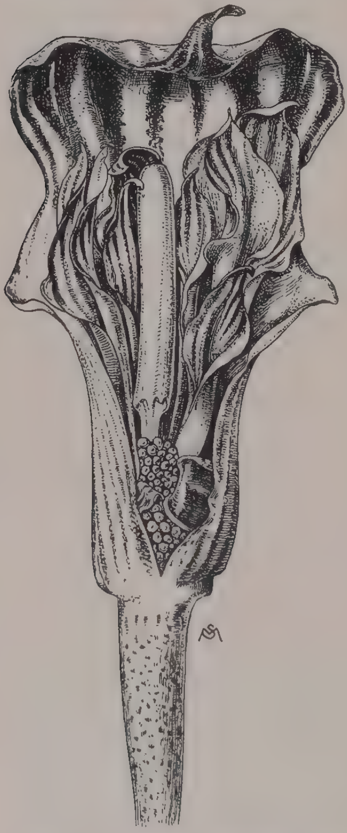

Fig. 1. Arisaema triphyllum with supernumerary spathes. × 1.

The conspicuous teratological features of the plant arise from the multiplication of the spathe or canopy-like floral bract. This usually single structure is here represented not merely by one main spathe, which is of unusual size though otherwise nearly normal form and markings, but within this are no less than twelve smaller spathes of varying sizes and proportionately slender development. All of these spathes arise at nearly the same height on the axis, the theoretically intervening internodes not being perceptible. The spadix is solitary and although unusually robust does not seem to show abnormality.

At one point, partially constricting the middle of the fertile portion of the spadix, is a broadish and striped belt-like structure, the nature of which is not at first sight evident. However, examination shows that it is undoubtedly an imperfectly developed spathe, which appears to have been caught in this position while the inflorescence was in the bud-stage, and in consequence to have been distorted in its subsequent development.

As in the case of most monstrosities, no environmental factor was observed which would in any way account for the deformity. The scape is a little more than ordinarily robust, as is also the spadix, but both are symmetrical and show no flattening, grooving, or other evidence of fasciation.

The secondary spathes are wholly sterile. As will be seen from the admirable sketch drawn by Mr. F. Schuyler Mathews the spathes are of varying breadth and in some cases rather tightly in-rolled. Some are also considerably shorter than the others, and these being at the back in the interior of the main spathe cannot be shown in the drawing.

Exceedingly few teratological developments have been observed, or at least recorded, in *Arisaema triphyllum* and when it is borne in mind that the species is common, widely distributed, conspicuous and generally known, and also that it flowers at a time when collectors are in the first enthusiasm of a new open season, this is rather surprising.

The late Prof. W. W. Bailey [1] described briefly a garden specimen in which two spadices were observed in a single spathe. Later [2] he mentioned a specimen sent to him by Miss Eloise Butler of Minneapolis, in which a double spathe included a single spadix. Miss Alice G. Clark [3] describes and figures a more complicated case (found at East Weymouth, Massachusetts) in which two somewhat unsymmetrically related spathes enclosed three somewhat flattened and grooved spadices.

Prof. Packard has most kindly given to the Gray Herbarium the monstrosity here described and it has been preserved in alcohol.

Gray Herbarium.

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[1] Bull. Torr. Bot. Club, ix. 91 (1882).

[2] Bot. Gaz. ix. 177 (1884).

[3] Rhodora, vi. 163 (1904).

Concerning Linum intercursum Bicknell.— In 1912[1] Mr. Bicknell proposed as a distinct species the yellow-flowered wild flax of the sand-plains of southern New England, Long Island and southward which had been referred to *Linum floridanum* by Small and by the editors of the Gray's New Manual, and gave it the name *Linum intercursum.* There can be little doubt that Mr. Bicknell's acute observation has detected a real difference between the two plants concerned: whether that difference is specific is, however, highly questionable. In the Gray Herbarium and that of the New England Botanical Club there are 26 sheets of *L. floridanum* and *L. intercursum.* A study of these shows six specimens intermediate in one character or another and indicates that neither in respect to the stature of the plants, the color, shape and texture of the leaves, the color and size of the capsules, nor the ciliation of the false septa (the principal characters cited) can any sharp line be drawn between the two.

Very possibly this was known to Mr. Bicknell; for he, if I interpret him correctly,[2] believes that nomenclature and classification are quite independent of one another and that every form which can be distinguished at all should bear a binomial name and pass as a species. Those, however, who believe that nomenclature can and should be made to set forth in some degree the facts of nature will doubtless, in view of the inconstancy of its characters, treat *L. intercursum* rather as a northern geographic variety of *L. floridanum* than as a definitely separable species. As such, it should be called *Linum floridanum* (Planch.) Trel., var. **intercursum** (Bicknell), n. comb.

In addition to the stations given by Mr. Bicknell, the variety has been collected at several places on Cape Cod, in Rhode Island and in the sand-plain region of central Connecticut.— C. A. Weatherby, East Hartford, Conn.

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[1] Bull. Torr. Bot. Club xxxix. 418.
[2] See Bull. Torr. Bot. Club xxxix. 427.

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